



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

HT-500-CWA
Job Sheet 177500



Part No: HT-500-CWA

Job Qty: 1 ea

Part Name: Series 500 Compressor Wash System with Auxiliary Air Tank



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 5/14/18

Job Tracking No:

Due Date: 7/16/18

Created By: Patrick Lussier

Type: Stock

Description:

Note: DWG HT-500-CWA Rev. 10 IPP Rev. A 18.05.10 new issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Purchasing	1 pcs	7/16/18	7/16/18	0.00	0.00	Purchasing		8/02/2018
110	Packaging	1 pcs	7/16/18	7/16/18	0.00	0.00	Packaging2		AUG 03 2018
120	QC	1 pcs	7/16/18	7/16/18	0.00	0.00	QC6		18-08-07
123	DC	1 pcs	7/16/18	7/16/18	0.00	0.00	DC		18-10-12
130	Packaging	1 pcs	7/16/18	7/16/18	0.00	0.00	Packaging3		18-10-12
140	QC21-FG	1 Ea	7/16/18	7/16/18	0.00	0.00	QC21		18-10-12

Part Op 100 - 1-Issue P/O 039889 MANUFACTURE HT-500-CWA AS PER DWG Supplier: METEC 2-DART to supply
Descriptions: decals -010P-70A and -010P-70B 3-DART to supply -010P-05 control panel Certificate of conformity is required
123 - Supply HT-500-CWA Customer packet

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
HT-500-CWA-010P-05	Control Panel	1 Ea (1 ea)	100-Purchasing	5071677
HT-500-CWA-010P-70A	Wash Emblem	1 Ea (1 ea)	100-Purchasing	5076603
HT-500-CWA-010P-70B	Rinse Emblem	1 Ea (1 ea)	100-Purchasing	5076604
HT-500-CWAP	Series 500 Compressor Wash System with Auxiliary Air Tank	1 Ea (1 ea)	100-Purchasing	5096846

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Purchasing	HT-500-CWA-010P-05	1	0	0
	HT-500-CWA-010P-70A	1	0	0
	HT-500-CWA-010P-70B	1	0	0
	HT-500-CWAP	1	2	0



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL : 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S098919



Part: HT-500-CWA

Job No: 177500

Serial No/Batch: S098919

Revision: 10

Inspector:

Exp Date:

Instructions:

Date: 08/03/18

ifications

uld not be found.

Plex 5/14/18 1:20 PM dart.Lussier.Patrick

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. <u>HT-500-CWA</u> NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:12.5%;">Skid-tube ☐</td> <td style="width:12.5%;">Cross tube ☐</td> <td style="width:12.5%;">Water Jet ☐</td> <td style="width:12.5%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐																						
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐																						
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐																						
Large Fab ☐	Composite ☐	Supplier ☐																							
Date : _____		Step #: _____		QTY Effective : _____		MRB (QSI042) Approval July 23, 2018																			
Description Work Order Deviation				Disposition																					
- Substitute (-65) 15C07-202 with 15C07-126, 5 gallon dip tube. - Substitute (-73) 06E04-147 Ferrule with McMaster Carr 54105K37 or equivalent. - Substitute (-14) R-162 with McMaster Carr 41735K11 Regulator (2-125 psi). - Substitute (-15) PK-1611 with McMaster Carr 41735K48 Mounting Ring Nut. - Substitute (-06) 100XUC with McMaster Carr 4089K63 100psi Pressure Gauge. - Substitute (-08) AOP Tech 410-4M4F-B with McMaster Carr 7768K26. - Substitute (-23) JCD14202010 with McMaster Carr 90835A2010. - Substitute (-39) NWH-PM6-4 push lock adapter with McMaster Carr 91465K92 - Substitute (-40) NWH-PM4-4 push lock adapter with McMaster Carr 91465K91 - Substitute (-37) PAR169 PF-4-2 fitting with PAR169 PF-6-4 - Substitute (-36) PAR170 PF-4-4 fitting with with PAR170 PF-6-4 - McMaster Carr 50375K47 or equivalent is a suitable item for 010P-67 - McMaster Carr 50785K221 Plug must be used to plug the hole on (-14) - (-68) 010P-67 is no longer required - 2.09" hole on 010P-04 and 010P-05 must be opened to 2.25" to accommodate gauge - The back of the aluminum box must be open up to fit the depth of the new gauge.				- This deviation is acceptable. - The drawing will be updated to incorporate the new supplier part numbers. - The fit, form and function of the engine wash kit will be as originally intended. - All deviations must be carried out together - All edges must be deburred				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval																	
Root Cause				FAULT CATEGORY																					
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong															
Design	☒	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions															
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance															
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect															
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing															
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved															
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing															
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish															
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread															
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence															
Past Expiry Date	☐	Manufacturing Process	☐	OTHER : _____																					
Misidentified	☐	Past Due	☐																						



20 Terry Fox Drive
 Vankleek Hill, Ontario K0B 1R0 , Canada
 Tel: (613) 678-3957
 Fax: (613) 678-3956

Delivery Slip No.: 22620
Date: Jul 27, 2018
Page: 1

Sold to:	Ship to:
Dart Aerospace Ltd. 1270 Aberdeen Street Hawkesbury, Ontario K6A 1K7	Dart Aerospace Ltd. 1270 Aberdeen Street Hawkesbury, Ontario K6A 1K7
Order No.: PO039889	Sold By: Walz, Christian D.
Shipped By: pick up	Ship Date: Jul 27, 2018

Description	Bin Loc	Unit	Quantity ordered	Quantity shipped	Quantity on B/O
Ser 500 Compressor Wash System with Aux Air Tank, dwg # HT-500-CWA Rev.10		Ass'y	1	1	
Ser 500 Compressor Wash System with Aux Air Tank, dwg # HT-500-CWA Rev.10		Ass'y	1	1	
Ser 500 Compressor Wash System with Aux Air Tank, dwg # HT-500-CWA Rev.10		Ass'y	1	1	
Ser 500 Compressor Wash System with Aux Air Tank, dwg # HT-500-CWA Rev.10		Ass'y	1		1
Ser 500 Compressor Wash System with Aux Air Tank, dwg # HT-500-CWA Rev.10		Ass'y	1		1
Price to be determined 2 units to be kept in stock at METEC					
The delivered goods must be inspected upon receipt to confirm compliance. Should there be discrepancies please notify METEC within 30 days of delivery. The goods are otherwise deemed accepted.					
Received by _____			Thank you for your order!		



20 Terry Fox Drive, Vankleek Hill, Ontario K0B 1R0

Tel. (613) 678-3957 & (613) 678-2782 Fax (613) 678-3956 metec@metec.ca

CERTIFICATE OF CONFORMITY

SOLD TO:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, Ont.
K6A 1K7

SHIPPED TO:

same

Quantity	Part Number	Part Name	P.O. Number
3	HT-500-CWA	Ser 500 Compressor Wash System	039889

DAS
9
9-89

MATERIAL: supplied by METEC

We hereby certify that the above parts were made in conformance with applicable drawings.

METEC Metal Technology Inc.

Jan Norris

Vankleek Hill, July 27, 2018



Invoice No.: 13867
 Date: Jul 27, 2018
 Page: 1

Dart Aerospace Ltd.
 1270 Aberdeen Street
 Hawkesbury, Ontario K6A 1K7

Shipping Address
 Dart Aerospace Ltd.
 1270 Aberdeen Street
 Hawkesbury, Ontario K6A 1K7

P.O. Number	Shipped by	Delivery Slip #:	Terms: 2%/10, Net 30. Due Aug 26, 2018.			
PO039889	pick up	22620				
Description	Qty ordered	Qty shipped	Qty on B/O	Unit	Unit Price	Amount
Ser 500 Compressor Wash System with Aux Air Tank, dwg # HT-500-CWA Rev.10	1	1		Ass'y	4,862.00	4,862.00
Ser 500 Compressor Wash System with Aux Air Tank, dwg # HT-500-CWA Rev.10	1	1		Ass'y	4,862.00	4,862.00
Ser 500 Compressor Wash System with Aux Air Tank, dwg # HT-500-CWA Rev.10	1	1		Ass'y	4,862.00	4,862.00
Ser 500 Compressor Wash System with Aux Air Tank, dwg # HT-500-CWA Rev.10	1		1	Ass'y	4,862.00	
Ser 500 Compressor Wash System with Aux Air Tank, dwg # HT-500-CWA Rev.10	1		1	Ass'y	4,862.00	
2 units to be kept in stock at METEC						
Subtotal:						14,586.00
H - HST 13% HST						1,896.18
Thank you for your order!						
HST # 867 061 723 RT0001 Interest on overdue accounts is charged at 24% per year			Total Amount including Tax			
			16,482.18			

DAS
9
9-89



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO039889**

Supplier: MEM001-VC
Metec Metal Technology Inc.
20 Terry Fox Drive PO Box 781
Vankleek Hill
ON
K0B 1R0 Canada
Phone: 613 678 3957
Fax: 613 678 3956

Attention: Walz, Shigi

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: PO039889

PO Date: 5/14/18

Due Date: 8/3/18

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Lussier, PatrickPhone:

Via: Ground

Pymt Terms: Net 60

Freight Terms:

Special Comments: Please keep qty of 2 unit on your shelf .

Items

Line Item	Job	Part	Supplier Part No	Item No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1		HT-500-CWAP			Series 500 Compressor Wash System with Auxiliary Air Tank	Firmed	-	8/3/18	1 Ea	0 Ea	1 Ea	\$4,862.00/Ea	\$4,862.00
Line Item Note W/O 177500													
2		HT-500-CWAP			Series 500 Compressor Wash System with Auxiliary Air Tank	Firmed	-	8/3/18	1 Ea	0 Ea	1 Ea	\$4,862.00/Ea	\$4,862.00
Line Item Note W/O 177533													
3		HT-500-CWAP			Series 500 Compressor Wash System with Auxiliary Air Tank	Firmed	-	8/3/18	1 Ea	0 Ea	1 Ea	\$4,862.00/Ea	\$4,862.00
Line Item Note W/O 177536													
4		HT-500-CWAP			Series 500 Compressor Wash System with Auxiliary Air Tank	Firmed	-	9/1/18	1 Ea	0 Ea	1 Ea	\$4,862.00/Ea	\$4,862.00
Line Item Note W/O 177538 PLEASE KEEP THIS UNIT IN YOUR STOCK													

Plex 7/30/18 8:27 AM dart.Lussier.Patrick

Items													
Line Item	Job	Part	Supplier Part No	Item No	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
5		HT-500-CWAP			Series 500 Compressor Wash System with Auxiliary Air Tank	Firmed	-	9/1/18	1 Ea	0 Ea	1 Ea	\$4,862.00/Ea	\$4,862.00
Line Item Note		W/O 177540 PLEASE KEEP UNIT IN YOUR STOCK											
												Grand Total:	\$24,310.00

Order Notes

Procurement Quality Clauses
 A005 RIGHT OF ENTRY
 A008 FIRST ARTICLE INSPECTION (FAI) BY SELLER, (DOCUMENTATION SENT TO DART AEROSPACE)
 A012 CHEMICAL AND PHYSICAL TEST REPORTS
 A016 PERSONNEL QUALIFICATION
 A017 RAW MATERIAL IDENTIFICATION (AS APPLICABLE)
 A026 CERTIFICATION OF MATERIAL CONFORMANCE
 A041 QUALITY MANAGEMENT SYSTEM
 A042 DART NOTIFICATION BY SUPPLIER
 A043 RETENTION OF QUALITY DOCUMENT

A048 COUNTERFEIT PARTS AVOIDANCE, DETECTION, MITIGATION AND DISPOSITION PROGRAM

A049 SUPPLIER AWARENESS

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.



Plex 7/30/18 8:27 AM dart.Lussier.Patrick

① Process Routing;

Shouldn't have all the routes.

② Component PO Receiving.

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HT-500-CWA FLOW TEST

ALL TESTS PERFORMED WITH 1 GALLON OF WATER

PSI	OPEN (NO RESTRICTION) SECONDS	50% (RESTRICTON) SECONDS
20	55	65
40	38	45
60	30	40
80	25	37

TESTS WERE PERFORMED WITH SHOP AIR HOOKED UP
TO THE HT-500-CWA TO KEEP IT AT A CONSTANT PSI.

1-1/2 GPM

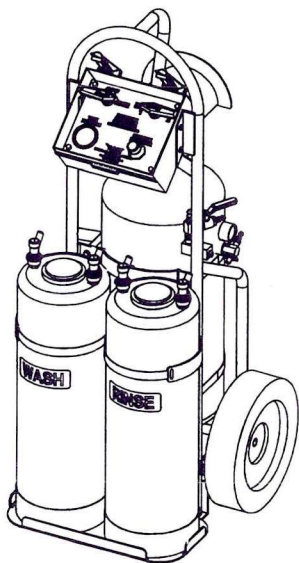
.946 L = 1 GAL

ALL CONNECTIONS CHECKED FOR LEAKS WITH LEAK DETECTOR

TECHNICIAN: 

DATE: 18-07-07

Job # 177500



DART
AEROSPACE

190 S. Danebo Ave., Eugene, OR. 97402
1-800-556-4166
e-mail: sales@dartaero.com
dartaerospace.com

TITLE

ENGINE WASH UNIT

DWG NO.

HT-500-CWA

REV

10

CUSTOMER 5 OF 5

SCALE

1:16

DATE

7/15/2014

SHEET

32 OF 32